

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2004/003893

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D261/04 C07D413/04 C07D417/04 C07D413/14 C07D413/12  
A61K31/42 A61K31/422

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 95/14680 A (PFIZER INC; KLEINMAN, EDWARD, F) 1 June 1995 (1995-06-01) cited in the application page 40, line 7; claim 1 page 21; example 28	1,2,5,6, 8-13,21
X	DE 199 09 785 A1 (BAYER AG) 7 September 2000 (2000-09-07) claim 1 example 1	1,2,6, 8-10
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

1 June 2005

Date of mailing of the international search report

0-8. 07. 05

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MOLINA; C T; AGUIAR A P: "Synthesis of new 4,5-dihydroisoxazoles with potential anti-inflammatory activity" HETEROCYCLIC COMMUNICATIONS., vol. 9, no. 5, 2003, pages 535-538, XP009044208 FREUND PUBLISHING HOUSE, TEL AVIV. compound 6	1,2,5, 8-10
X	----- DATABASE CAPLUS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; RAI, K. M. LOKANATHA ET AL: "Intermolecular 1,3-dipolar cycloaddition of nitrile oxides with vinyl acetate and acrylonitrile" XP002318408 retrieved from STN Database accession no. 1997:323068 compounds with RN 190907-46-1, 190907-47-2, 190907-48-3 abstract & INDIAN JOURNAL OF CHEMISTRY, SECTION B: ORGANIC CHEMISTRY INCLUDING MEDICINAL CHEMISTRY, 36B(3), 242-245 CODEN: IJSBDB; ISSN: 0376-4699, 1997,	1,2,5
A	----- WO 95/14861 A (AOYAGI, SOICHIRO) 1 June 1995 (1995-06-01) cited in the application claims	1-28
X	----- FIHI R ET AL: "REACTION SES METHYLENE GAMMA-BUTYROLACTONES AVEC LES ARYLNITRILOXYDES. EVOLUTION INATTENDUE DU BISADDUIT ISSU DE LA 5-METHYLENE(5H)FURAN-2-ONE" BULLETIN DES SOCIETES CHIMIQUES BELGES, vol. 104, no. 1, 1995, pages 55-62, XP009044216 ISSN: 0037-9646 compounds 6F,8F	1,3,8
X	----- RAI K M L ET AL: "A CONVENIENT METHOD OF THE GNERATION OF NITRILE OXIDE AND ITS APPLICATION TO THE SYNTHESIS OF 2-ISOXAZOLINES" ORGANIC PREPARATIONS AND PROCEDURES INTERNATIONAL, ORGANIC PREPARATION AND PROCEDURES CO., NEWTON HIGHLANDS, MA, US, vol. 24, no. 1, 1992, pages 91-94, XP009044215 ISSN: 0030-4948 compounds 3A,3D	1,8
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	AL-TIMARI U A R ET AL: "REGIOSELECTIVE SYNTHESIS OF C-NUCLEOSIDES BY 1,3-DIPOLAR CYCLOADDITION OF ARYLNITRILE OXIDES TO 5,6-DIDEOXY-1,2-O-ISOPROPYLIDENE-ALPHA-D-X YL O-HEX-5-ENOFURANOSE" CARBOHYDRATE RESEARCH, ELSEVIER SCIENTIFIC PUBLISHING COMPANY. AMSTERDAM, NL, vol. 218, 1991, pages 121-127, XP009044213 ISSN: 0008-6215 compounds 3E,3F,4E,4F	1,3,8
X	CLERICI FRANCESCA ET AL: "Isothiazole dioxides: synthesis and inhibition of Trypanosoma brucei protein farnesyltransferase." BIOORGANIC & MEDICINAL CHEMISTRY LETTERS. 19 AUG 2002, vol. 12, no. 16, 19 August 2002 (2002-08-19), pages 2217-2220, XP002330201 ISSN: 0960-894X table 1; compound 18	1,3,8-12
X	DATABASE CAPLUS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; HAFEZ, O. M. ABDEL ET AL: "New pyrazolines, isoxazolines and sulfides from 4,7-dimethoxy-5-acetyl-6-hydroxybenzofuran (Khellinone) and their antimicrobial activities" XP002330202 retrieved from STN Database accession no. 1991:122152 compound with RN 132600-64-7 abstract & PAKISTAN JOURNAL OF SCIENTIFIC AND INDUSTRIAL RESEARCH , 33(5-6), 197-200 CODEN: PSIRAA; ISSN: 0030-9885, 1990,	1,3,7-12
X	DATABASE CAPLUS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; KHALIL, ZARIF H. ET AL: "Synthesis and microbial activity of 5-heterocyclo-8-hydroxyquinolines" XP002330203 retrieved from STN Database accession no. 1991:247104 compound with RN 134145-31-6 abstract & JOURNAL OF THE INDIAN CHEMICAL SOCIETY , 67(10), 821-3 CODEN: JICSAH; ISSN: 0019-4522, 1990,	1,3,8-12

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE CAPLUS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; KOROLEVA, E. V. ET AL: "Cycloreversion of 5-(4-pyridyl)-2-isoxazolines in reactions with bases" XP002330204 retrieved from STN Database accession no. 1998:47410 compound with RN 202406-74-4 abstract & RUSSIAN JOURNAL OF ORGANIC CHEMISTRY (TRANSLATION OF ZHURNAL ORGANICHESKOI KHIMII) , 33(1), 108-112 CODEN: RJOCEQ; ISSN: 1070-4280, 1997, -----	1,3,8
A	WO 02/081447 A (DAEWOONG PHARMACEUTICAL CO., LTD; PARK, JOON-SEOK; BYUN, YOUNG-SEOK; M) 17 October 2002 (2002-10-17) claims -----	1-28

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## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
Although claims 9-12 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1 (part); 2,5,6; 8-12(part); 13,21

Compounds of structure (I) in which X=O and R2 is a linear substituent, compounds of structure (XXXIV); processes for their preparation and corresponding uses

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2. claims: 1(part); 3,4; 8-12(part); 14-20, 22-28

Compounds of structure (I) in which X=O and R2 is a heterocyclic substituent; processes for their preparation and corresponding uses

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3. claims: 1(part); 8-12(part)

Compounds of structure (I) in which X=S or NR8 and corresponding uses

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9514680	A	01-06-1995	AT 187447 T	15-12-1999
			CA 2177375 A1	01-06-1995
			DE 69422061 D1	13-01-2000
			DE 69422061 T2	30-03-2000
			DK 730587 T3	10-04-2000
			EP 0730587 A1	11-09-1996
			ES 2139754 T3	16-02-2000
			FI 945556 A	27-05-1995
			GR 3032506 T3	31-05-2000
			WO 9514680 A1	01-06-1995
			JP 2818820 B2	30-10-1998
			JP 9500146 T	07-01-1997
			PT 730587 T	31-05-2000
			US 5686434 A	11-11-1997
DE 19909785	A1	07-09-2000	NONE	
WO 9514861	A	01-06-1995	JP 7145776 A	06-06-1995
			AU 7949894 A	13-06-1995
			WO 9514861 A1	01-06-1995
WO 02081447	A	17-10-2002	WO 02081447 A1	17-10-2002